

## **Historic, Archive Document**

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United States  
Department of  
Agriculture

Soil  
Conservation Service

Spokane,  
Washington



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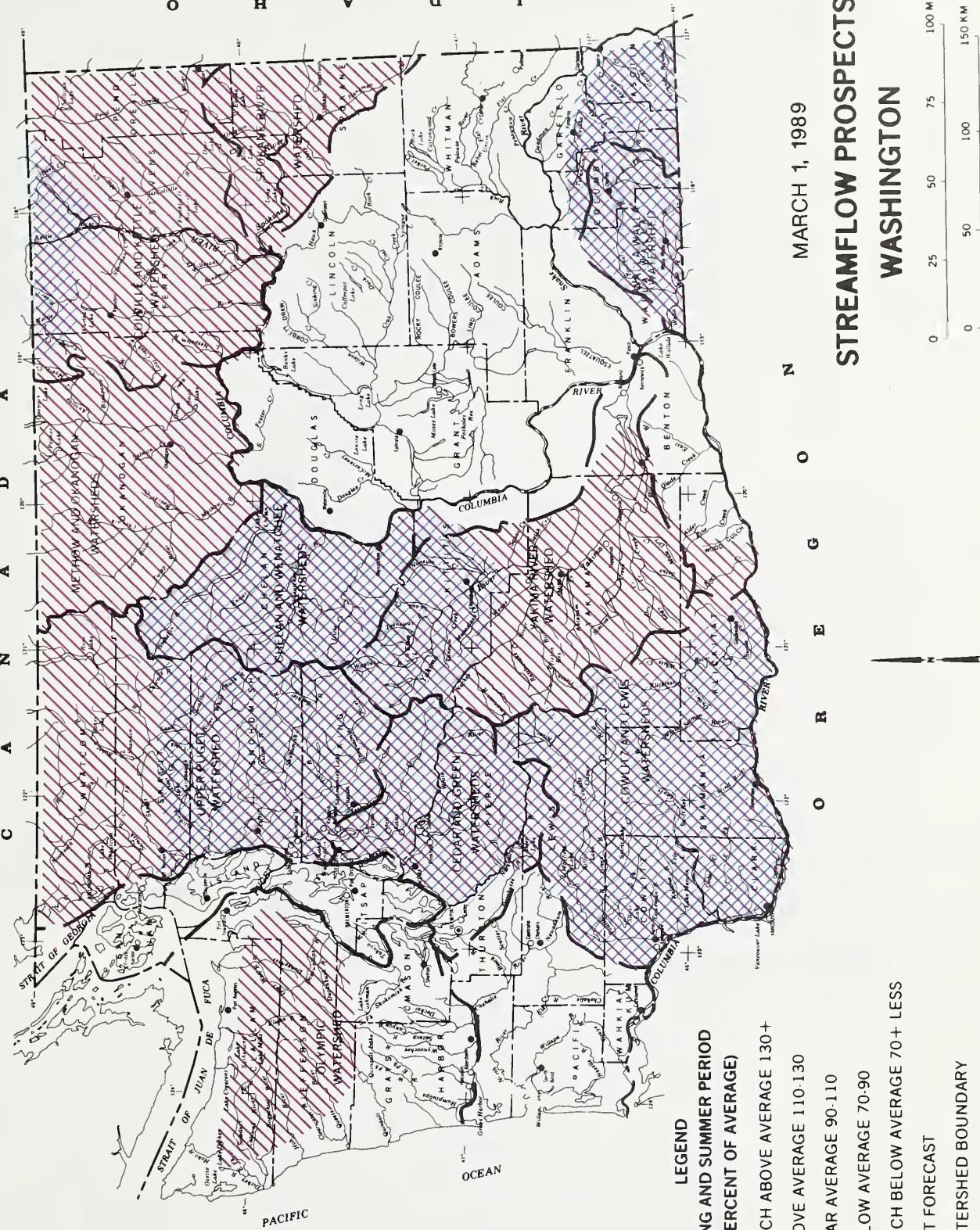
# Washington Water Supply Outlook

MARCH 1, 1989



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SOURCE: Data compiled by SCS  
Field Personnel

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## GENERAL OUTLOOK

### SUMMARY:

RESERVOIR STORAGE REMAINS BELOW NORMAL AT THE MAJOR IRRIGATION PROJECTS THROUGHOUT THE STATE, WITH THE RESERVOIRS IN THE YAKIMA BASIN 78% OF NORMAL. MARCH STREAMFLOWS WERE BELOW AVERAGE AND VARIED FROM 27% OF NORMAL ON THE SPOKANE RIVER TO 85% FOR THE CHELAN RIVER AT CHELAN. COLD DRY WEATHER COVERED WASHINGTON DURING THE FIRST TWO WEEKS OF THE MONTH. SNOWPACK, AS A PERCENT OF NORMAL, DECLINED OVER THE STATE AND VARIED FROM 120% IN THE WALLA WALLA TO 77% IN THE OLYMPIC EASIN. PRECIPITATION WAS BELOW NORMAL OVER MOST OF WASHINGTON FOR FEBRUARY WITH ONLY THE WALLA WALLA AND THE OKANOGAN ABOVE AVERAGE. RUNOFF FOR 1989 IS FORECASTED TO BE AVERAGE OVER MOST OF WASHINGTON. THESE FORECASTS VARY FROM 105% ON THE LEWIS RIVER TO 77% ON AHTANUM CREEK. TEMPERATURES WERE BELOW NORMAL DURING FEBRUARY WITH THE OKANOGAN FIVE DEGREES BELOW NORMAL AND THE SPOKANE BASIN 11 DEGREES BELOW.

NOTE: THE TERMS "NORMAL" AND "AVERAGE" AS USED IN THIS PUBLICATION, ARE THE SAME.

### SNOWPACK:

Temperature averaged 7 degrees below normal over the state during February. Snowpack averages decreased in most areas of Washington during February. The Walla Walla Basin at 120% of average remained the best. Along the west slopes of the Cascade Mountains, the Lewis-Cowlitz Basin was 96% down from 103% and the White-Green Basin was 98% down from 107%. The Eastern slopes of the Cascade Mountains are lower with the Yakima Basin and the Chelan at 85% of normal. Maximum snow cover is at the Cayuse Pass snow pillow with 67.6 inches of water content on the ground. This site normally would have 67.0 inches of water content.

### PRECIPITATION:

Precipitation was below normal over most of Washington for February. The Okanogan-Methow, and the Walla Walla were the only basins with above average precipitation at 134% and 116% of normal. Some of the below normal basins were the SPOKANE at 46%, the Colville-Pend Oreille at 82%, and the Chelan at 57% of normal. Some values in the West Cascade Basins include North Puget at 38%, White-Green at 56% and the Olympic at 54%. SNOTEL sites in Washington showed the high elevation year-to-date precipitation values to be 86% of average, down from 95% last month.

## **RESERVOIRS:**

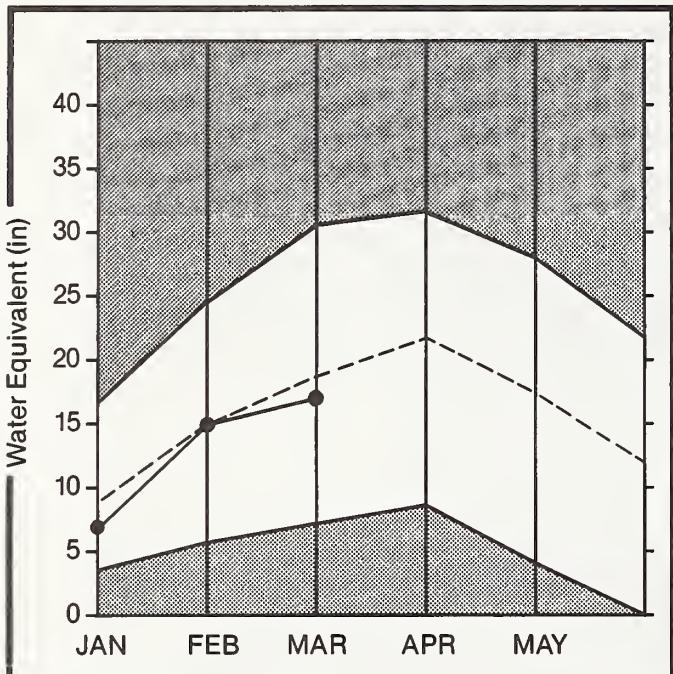
March 1 reservoir storage in the Yakima Basin was 542,600 acre feet, 78% of average, up from 495,100 acre feet, 77% of average. Other major reservoir storage include Roosevelt at 36% of normal, down from 45% last month. Banks Lake is at 111% and the Okanogan reservoirs remained at 104% of March 1 average. The power reservoirs contain the following: Coeur d'Alene Lake 91,200 acre feet or 41% of normal, Chelan Lake 239,300 acre feet at 142%, up from 72% last month, and Ross Lake at 559,900 acre feet, 182% of average.

## **STREAMFLOW:**

The reduced percent of normal snowpack and below average precipitation have caused a reduction in most forecasts around Washington. March 1 streamflow forecasts vary from 105% in the Lewis River to 77% in Ahtanum Creek. Forecasts for some west side streams include: Cedar River 100%, Skagit River 83%, down from 95% last month and the Dungeness River 84%. Some east side streams include the Yakima River at Cle Elum 86%, the Methow River 85% and the Wenatchee River 91% down from 103% last month. February streamflows were below normal in most areas of Washington, continuing a trend established during the preceding summer. Streamflow varied from 27% on the Spokane River and the maximum of 85% from the Chelan River. On the west side of the Cascade Mountains, runoff from the Chehalis was 61%, the Skagit 60% and the Skykomish 39% of normal. The eastern slope of the Cascades runoff on the Yakima was 63% and the Okanogan at 63% of average. The Columbia River was 63% at the International Border and 60% below Priest Rapids.

# SPOKANE

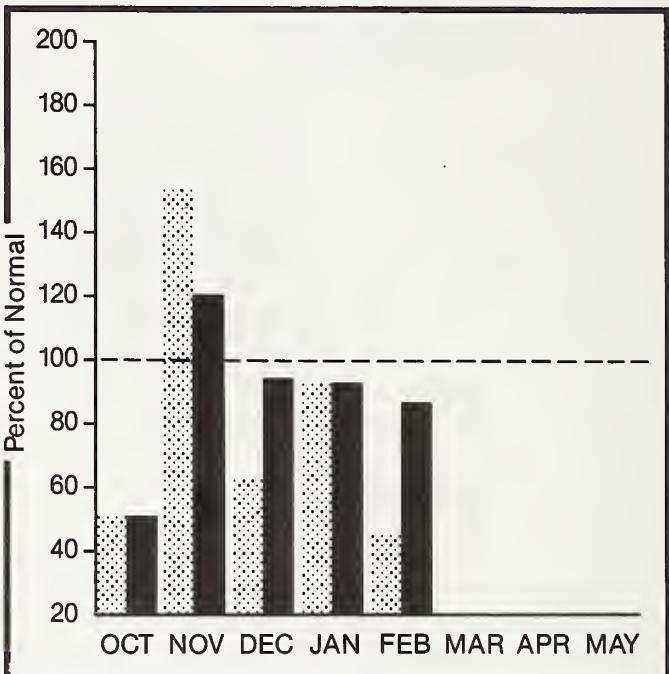
Mountain snowpack\* (inches)



\*Based on selected stations

Maximum      [Solid Gray Bar]  
Average      [Dashed Line]  
Minimum      [Hatched Bar]  
Current      [Solid Line with Dots]

Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation      [Hatched Bar]  
Year-to-date precipitation      [Solid Black Bar]

## SPOKANE RIVER BASIN

### WATER SUPPLY OUTLOOK:

Forecasted runoff for the Spokane River Basin is 88% of normal for March 1. This forecast is based on a snowpack 88% of average and a water year-to-date precipitation value 85% of normal. Streamflow during February on the Spokane River was 27% of average at Spokane. March 1 storage in Coeur d' Alene Lake was 91,200 acre feet compared to 109,200 last month; average storage in Coeur d'Alene for March 1 is 220,900 acre feet. Precipitation for February was 46% of average. Maximum snow water again occurred at the Lost Lake snow course with 120 inches of snow with 41.0 inches of water content, March 1 average for this site is 48.9 inches. Temperatures averaged 11 degrees below normal during February.

For more information contact your local Soil Conservation Service office.

## SPOKANE RIVER BASIN

## STREAMFLOW FORECASTS

| FORECAST POINT            | FORECAST PERIOD | MOST PROBABLE<br>(1000AF) | MOST PROBABLE<br>(% AVG.) | WET SUBS.<br>(1000AF) | DRY SUBS.<br>(1000AF) | REAS. MAX.<br>(1000AF) | REAS. MIN.<br>(1000AF) | 25 YR.<br>AVG.<br>(1000AF) |
|---------------------------|-----------------|---------------------------|---------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------------|
| SPOKANE nr Post Falls (2) | APR-SEP         | 2420                      | 86                        | 2840                  | 2030                  | 3350                   | 1490                   | 2820                       |
|                           | APR-JUL         | 2340                      | 86                        |                       |                       |                        |                        |                            |
| SPOKANE at Long Lake      | APR-JUL         | 2620                      | 86                        |                       |                       | 3750                   | 1490                   | 3045                       |

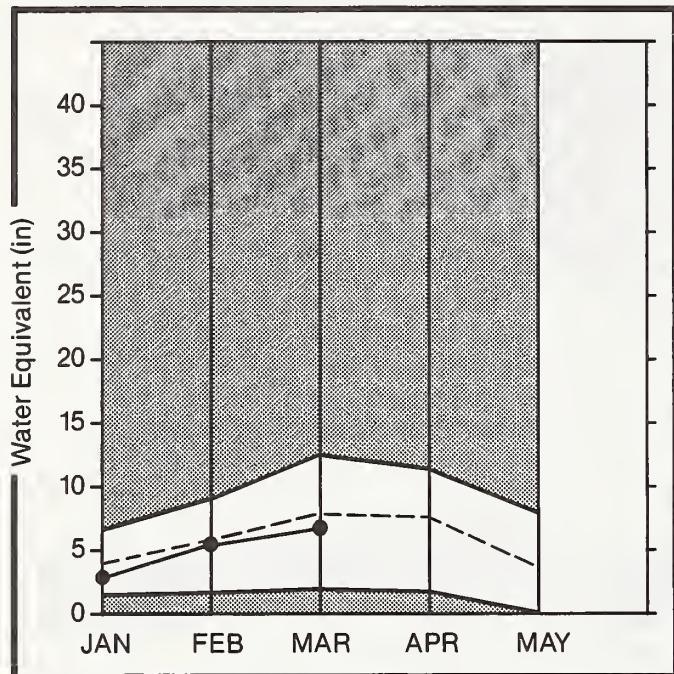
## RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

| RESERVOIR     | USEABLE CAPACITY | THIS YEAR | LAST YEAR | ** USEABLE STORAGE ** AVG. | WATERSHED     | NO. COURSES AVG'D | THIS YEAR AS % OF LAST YR. | AVERAGE |
|---------------|------------------|-----------|-----------|----------------------------|---------------|-------------------|----------------------------|---------|
| COEUR D'ALENE | 291.2            | 91.2      | 192.2     | 220.9                      | Spokane River | 20                | 147                        | 93      |

WET SUBS. and DRY SUBS. represent 150 and 50 percent subsequent precipitation events respectively.  
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.  
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.  
 (2) - Corrected for upstream diversions or changes in reservoir storage.

# COLVILLE - PEND OREILLE

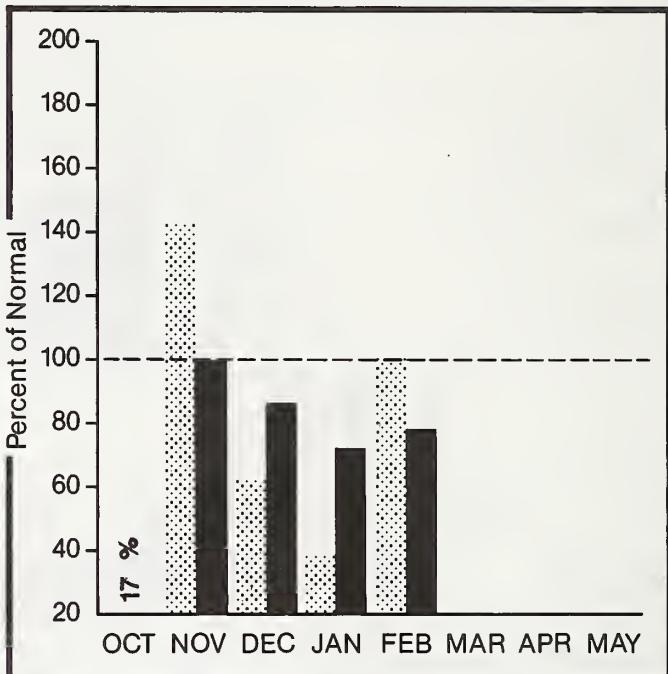
**Mountain snowpack\*** (inches)



\*Based on selected stations

Maximum      [Hatched Box]      Average      [Dashed Line]  
Minimum      [Hatched Box]      Current      [Solid Line with Dots]

**Precipitation\*** (percent of normal)



\*Based on selected stations

Monthly precipitation      [Hatched Box]      Year to date precipitation      [Solid Black Box]

## COLVILLE - PEND OREILLE RIVER BASINS

### WATER SUPPLY OUTLOOK:

March 1 snow cover basin-wide is 86% of average, down from 92% last month. The forecast for the Pend Oreille River streamflow is 89% of normal for the summer. Other forecasts are the Kettle River, 92% and the Colville River at 88% of normal for the summer runoff period. Snowpack at Bunchgrass Meadow snow course was 66 inches of snow with 20.8 inches of water. Precipitation during February was 100% of average, bringing the water year-to-date to 78% of normal. Streamflows for February were 38% of average on the Pend Oreille River, 61% on the Kettle River and 63% on the Columbia River at the International Border. Temperatures averaged 11 degrees below normal for February.

For more information contact your local Soil Conservation Service Office.

## COLVILLE - PEND OREILLE RIVER BASINS

## STREAMFLOW FORECASTS

| FORECAST POINT                   | FORECAST PERIOD | MOST PROBABLE<br>(1000AF) | MOST PROBABLE<br>(% AVG.) | WET SUBS.<br>(1000AF) | DRY SUBS.<br>(1000AF) | REAS. MAX.<br>(1000AF) | REAS. MIN.<br>(1000AF) | 25 YR.<br>AVG.<br>(1000AF) |
|----------------------------------|-----------------|---------------------------|---------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------------|
| PEND OREILLE b1 Box Canyon (2)   | APR-SEP         | 13500                     | 89                        |                       |                       | 16700                  | 10300                  | 15170                      |
|                                  | APR-JUL         | 12400                     | 89                        |                       |                       | 15200                  | 9340                   | 13900                      |
|                                  | APR-JUN         | 10400                     | 89                        |                       |                       | 13100                  | 8090                   | 11960                      |
| CHAMOKANE CK nr Long Lake        | MAY-AUG         | 7.8                       | 95                        |                       |                       | 12.3                   | 3.3                    | 9.2                        |
| COLVILLE at Kettle Falls         | APR-SEP         | 122                       | 88                        | 132                   | 112                   | 190                    | 54                     | 139                        |
|                                  | APR-JUL         | 113                       | 88                        |                       |                       | 176                    | 50                     | 128                        |
|                                  | APR-JUN         | 104                       | 88                        |                       |                       | 162                    | 46                     | 118                        |
| KETTLE nr Laurier                | APR-SEP         | 1750                      | 92                        | 1810                  | 1690                  | 2340                   | 1180                   | 1907                       |
|                                  | APR-JUL         | 1660                      | 92                        |                       |                       | 2200                   | 1120                   | 1807                       |
|                                  | APR-JUN         | 1490                      | 92                        |                       |                       | 1990                   | 1000                   | 1622                       |
| COLUMBIA at Birchbank (2)        | APR-SEP         | 41800                     | 94                        |                       |                       | 47600                  | 35600                  | 44390                      |
|                                  | APR-JUL         | 33400                     | 94                        |                       |                       | 38000                  | 28400                  | 35440                      |
|                                  | APR-JUN         | 24100                     | 94                        |                       |                       | 27700                  | 20500                  | 25650                      |
| COLUMBIA at Grand Coulee Dam (2) | APR-SEP         | 61800                     | 93                        |                       |                       | 71800                  | 51800                  | 66460                      |
|                                  | APR-JUL         | 52100                     | 93                        |                       |                       | 59900                  | 43700                  | 55730                      |
|                                  | APR-JUN         | 40400                     | 93                        |                       |                       | 46500                  | 34300                  | 43420                      |

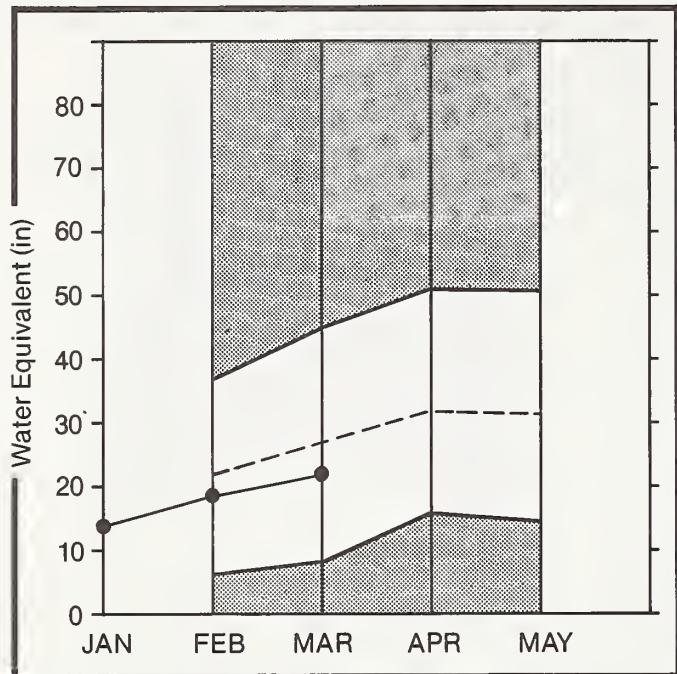
## RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

| RESERVOIR | USEABLE CAPACITY | ** USEABLE STORAGE ** |           |        | WATERSHED          | NO. COURSES AVG'D | THIS YEAR AS % OF LAST YR. | AVERAGE |
|-----------|------------------|-----------------------|-----------|--------|--------------------|-------------------|----------------------------|---------|
|           |                  | THIS YEAR             | LAST YEAR | AVG.   |                    |                   |                            |         |
| ROOSEVELT | 5232.0           | 1005.9                | 3080.7    | 2763.0 | Colville River     | 3                 | 125                        | 88      |
| BANKS     | 715.0            | 674.8                 | 661.5     | 606.0  | Pend Oreille River | 12                | 124                        | 86      |
|           |                  |                       |           |        | Kettle River       | 8                 | 124                        | 88      |

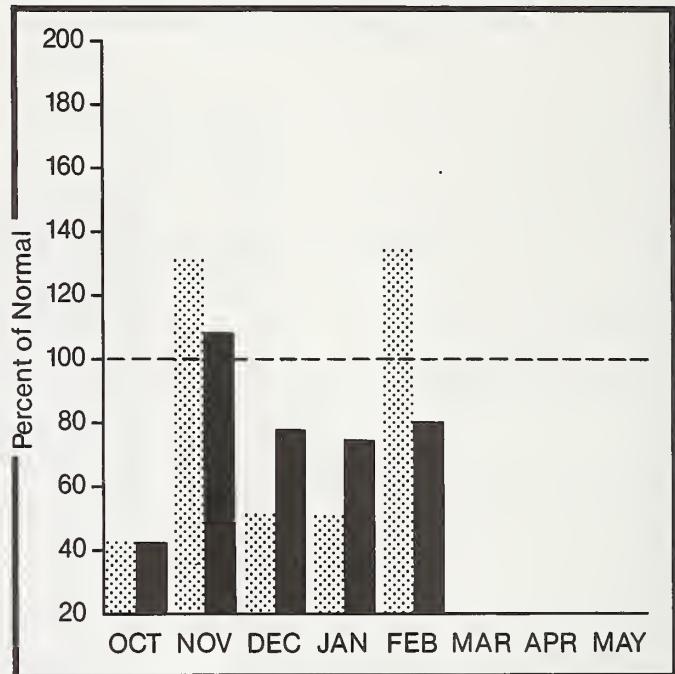
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 (2) - Corrected for upstream diversions or changes in reservoir storage.

# OKANOGAN AND METHOW

**Mountain snowpack\*** (inches)



**Precipitation\*** (percent of normal)



\*Based on selected stations

\*Based on selected stations

Maximum      [diagonal lines]      Average      [dashed line]  
Minimum      [horizontal lines]      Current      [solid line with dots]

Monthly precipitation      [dotted bar]      Year to date precipitation      [solid bar]

## OKANOGAN - METHOW RIVER BASINS

Snow cover, as of March 1, is 80% of average on the Okanogan-Methow Basin. This is based upon measurements made at 33 snow courses and SNOTEL sites. February precipitation in the Okanogan-Methow was 134% of normal, with water year-to-date 81% of average. Temperatures were five degrees below normal for the month. Maximum snow water occurred at the Harts Pass SNOTEL, elevation 6500 feet, with 32.2 inches of water. Storage in the Conconully Reservoirs is 14,600 acre feet, which is 62% of capacity and 104% of March 1 average. Summer runoff forecasted for the Okanogan River is 76% of normal, down from 92% last month. The Similkameen River 77%, down from 96% last month and the Methow River is 85% of normal. Okanogan River streamflow was at 63% of average for February while the Similkameen River averaged 69%.

For more information contact your local Soil Conservation Service office.

## OKANOGAN - METHOW RIVER BASINS

## STREAMFLOW FORECASTS

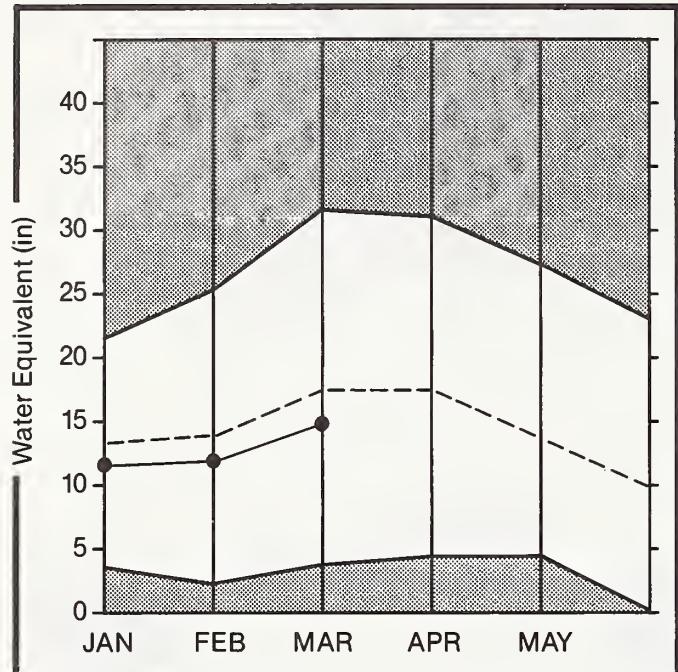
| FORECAST POINT              | FORECAST PERIOD | MOST PROBABLE<br>(1000AF) | MOST PROBABLE<br>(% AVG.) | WET SUBS.<br>(1000AF) | DRY SUBS.<br>(1000AF) | REAS. MAX.<br>(1000AF) | REAS. MIN.<br>(1000AF) | 25 YR.<br>AVG.<br>(1000AF) |
|-----------------------------|-----------------|---------------------------|---------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------------|
| SIMILKAMEEN R. nr Nighthawk | APR-SEP         | 1100                      | 77                        | -332.0                | -332.0                | 1490                   | 715                    | 1432                       |
|                             | APR-JUL         | 1020                      | 77                        | -313.0                | -313.0                | 1380                   | 660                    | 1333                       |
|                             | APR-JUN         | 970                       | 77                        | -258.0                | -258.0                | 1170                   | 565                    | 1128                       |
| OKANOGAN R. nr Tonasket     | APR-SEP         | 1260                      | 76                        | -401.0                | -401.0                | 1870                   | 645                    | 1661                       |
|                             | APR-JUL         | 1140                      | 76                        | -361.0                | -361.0                | 1700                   | 585                    | 1501                       |
|                             | APR-JUN         | 950                       | 76                        | -305.0                | -305.0                | 1410                   | 485                    | 1255                       |
| METHOW RIVER nr Pateros     | APR-SEP         | 830                       | 83                        | -150.0                | -150.0                | 1150                   | 505                    | 980                        |
|                             | APR-JUL         | 765                       | 84                        | -142.0                | -142.0                | 1060                   | 465                    | 907                        |
|                             | APR-JUN         | 650                       | 85                        | -119.0                | -119.0                | 905                    | 395                    | 769                        |

| RESERVOIR STORAGE<br>(1000AF) |                  |                       |           | WATERSHED SNOWPACK ANALYSIS |                |                   |          |         |
|-------------------------------|------------------|-----------------------|-----------|-----------------------------|----------------|-------------------|----------|---------|
| RESERVOIR                     | USEABLE CAPACITY | ** USEABLE STORAGE ** |           | WATERSHED                   | NO. COURSES    | THIS YEAR AS % OF | LAST YR. | AVERAGE |
|                               | 1                | THIS YEAR             | LAST YEAR | AVG.                        |                |                   |          |         |
| CONCONULLY LAKE (SALMON)      | 10.5             | 8.0                   | 7.4       | 8.0                         | Okanogan River | 28                | 112      | 81      |
| CONCONULLY RESERVOIR          | 13.0             | 6.6                   | 5.5       | 6.0                         | Methow River   | 4                 | 100      | 69      |

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# WENATCHEE AND CHELAN

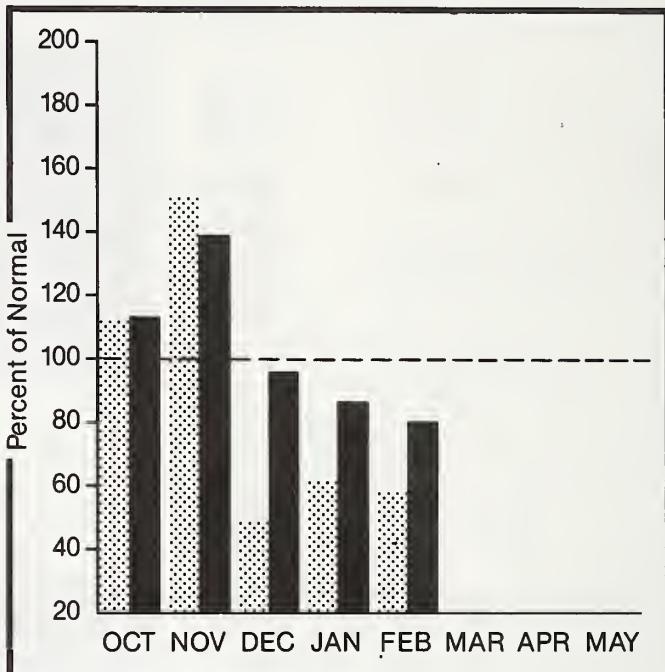
**Mountain snowpack\* (inches)**



\*Based on selected stations

Maximum      [Dotted Line]      Average      [Dashed Line]  
Minimum      [Solid Line]      Current      [Line with Dots]

**Precipitation\* (percent of normal)**



\*Based on selected stations

Monthly precipitation      [Dotted Bar]      Year to date precipitation      [Solid Bar]

## WENATCHEE AND CHELAN RIVER BASINS

### WATER SUPPLY OUTLOOK:

Runoff for the Wenatchee River is forecast to be 91% of normal for the summer, down from 103% last month. Forecasts in the Chelan River runoff are for 87% down from 95% average. February streamflow within the basin was 69% of normal on the Wenatchee and 85% on the Chelan River. Precipitation during February was 57% of normal in the basin and 80% from October 1 to March 1. Reservoir storage in Lake Chelan is 239,300 acre feet or 148% of March 1 average and 35% of capacity. Snowpack in the Wenatchee-Chelan Basin is 85% of normal. Lyman Lake SNOTEL had the most snow water with 49.0 inches on March 1.

For more information contact your local Soil Conservation Service office.

HENATCHEE - CHELAN RIVER BASINS

STREAMFLOW FORECASTS

| FORECAST POINT                    | FORECAST PERIOD | MOST PROBABLE (1000AF) | MOST PROBABLE (% AVG.) | WET SUBS. (1000AF) | DRY SUBS. (1000AF) | REAS. MAX. (1000AF) | REAS. MIN. (1000AF) | 25 YR. AVG. (1000AF) |
|-----------------------------------|-----------------|------------------------|------------------------|--------------------|--------------------|---------------------|---------------------|----------------------|
| CHELAN RIVER at Chelan 1          | APR-SEP         | 1030                   | 87                     |                    |                    | 1220                | 830                 | 1182                 |
|                                   | APR-JUL         | 705                    | 97                     |                    |                    | 1070                | 740                 | 1040                 |
|                                   | APR-JUN         | 710                    | 97                     | -105.0             | -105.0             | 865                 | 555                 | 815                  |
| STEHEKIN R. at Stehekin           | APR-SEP         | 775                    | 92                     |                    |                    | 885                 | 665                 | 844                  |
|                                   | APR-JUL         | 435                    | 92                     | -59.0              | -59.0              | 750                 | 560                 | 714                  |
|                                   | APR-JUN         | 495                    | 91                     | -46.0              | -46.0              | 565                 | 425                 | 541                  |
| ENTIAT RIVER nr Ardenvoir         | APR-SEP         | 210                    | 90                     |                    |                    | 255                 | 163                 | 233                  |
|                                   | APR-JUL         | 200                    | 90                     | -21.0              | -21.0              | 245                 | 156                 | 221                  |
|                                   | APR-JUN         | 155                    | 91                     | -16.0              | -16.0              | 189                 | 121                 | 171                  |
| WENATCHEE RIVER at Plain          | APR-SEP         | 1150                   | 91                     | 1300               | 1000               | 1560                | 745                 | 1270                 |
|                                   | APR-JUL         | 1010                   | 91                     | 1130               | 890                | 1370                | 655                 | 1113                 |
|                                   | APR-JUN         | 820                    | 91                     | 910                | 710                | 1110                | 530                 | 899                  |
| STEMILIT nr Wenatchee (miners in) | MAY-SEP         | 124                    | 90                     | -14.0              | -14.0              | 168                 | 80                  | 138                  |
| ICICLE CREEK nr Leavenworth       | APR-SEP         | 325                    | 88                     | 360                | 290                | 445                 | 205                 | 370                  |
|                                   | APR-JUL         | 600                    | 88                     | 325                | 265                | 410                 | 191                 | 340                  |
|                                   | APR-JUN         | 240                    | 89                     | 260                | 215                | 325                 | 154                 | 270                  |
| COLUMBIA R. bl Rock Island Dam 2  | APR-SEP         | 67100                  | 93                     | -5150.0            | -5150.0            | 78700               | 55500               | 72250                |
|                                   | APR-JUL         | 56700                  | 93                     | -4150.0            | -4150.0            | 66700               | 47100               | 61050                |
|                                   | APR-JUN         | 44400                  | 93                     | -3330.0            | -3330.0            | 52000               | 36800               | 47730                |

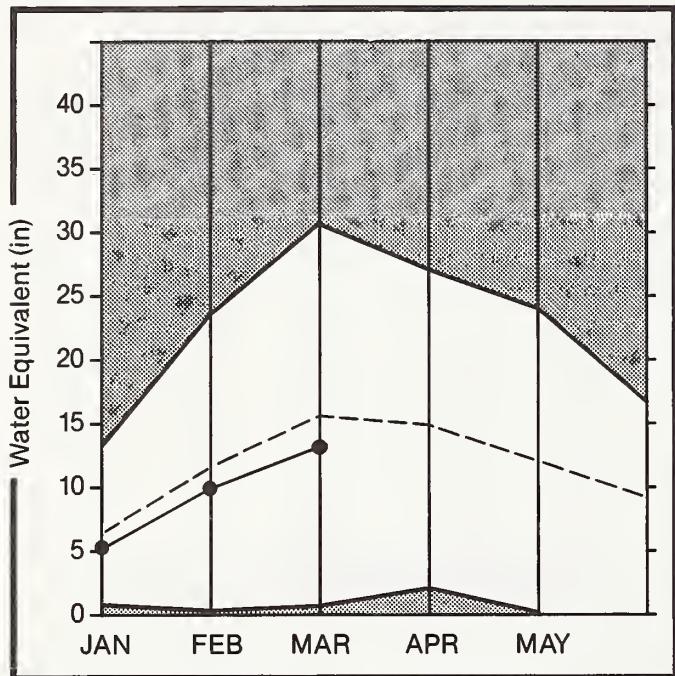
RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

| RESERVOIR   | USEABLE CAPACITY | ** USEABLE STORAGE ** | WATERSHED         | NO. COURSES | THIS YEAR AS % OF |
|-------------|------------------|-----------------------|-------------------|-------------|-------------------|
|             | THIS YEAR        | LAST YEAR             | AVG.              | Avg'D       | LAST YR. AVERAGE  |
| CHELAN LAKE | 676.1            | 239.3 91.9 168.1      | Chelan Lake Basin | 5           | 97 86             |
|             |                  |                       | Entiat River      | 2           | 107 101           |
|             |                  |                       | Wenatchee River   | 7           | 102 85            |
|             |                  |                       | Colockum Creek    | 1           | 66 47             |
|             |                  |                       | Squilchuck Creek  | 1           | 133 97            |
|             |                  |                       | Stemilt Creek     | 2           | 120 81            |

WET SUBS. and DRY SUBS. represent 150 and 50 percent subsequent precipitation events respectively.  
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 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.  
 (2) - Corrected for upstream diversions or changes in reservoir storage.

# YAKIMA

**Mountain snowpack\* (inches)**

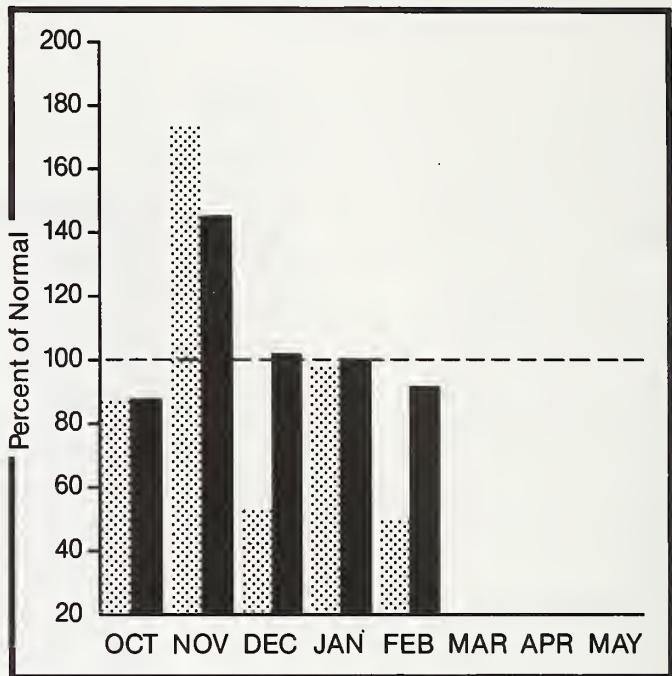


\*Based on selected stations

Maximum           Average     

Minimum           Current     

**Precipitation\* (percent of normal)**



\*Based on selected stations

Monthly precipitation           Year to date precipitation     

## YAKIMA RIVER BASIN

### WATER SUPPLY OUTLOOK:

March 1 reservoir storage for the five major reservoirs was at 542,600 acre feet or 78% of normal, up from 495,100 acre feet last month. Forecasts for the Yakima Basin runoff vary throughout the basin as follows: the Yakima River at Cle Elum 86% down from 101% last month, Naches River 79% down from 89%, the Yakima River at Parker 79% down from 96% and Ahtanum Creek 77%. February streamflow for the Yakima Basin was 63% of normal. Snowpack is 85% of average in the Yakima Basin based upon 22 snow course and SNOTEL readings. February precipitation was 49% of normal and 91% for the water year-to-date. Temperatures were ten degrees below the February average.

For more information contact your local Soil Conservation Service office.

## YAKIMA RIVER BASIN

## STREAMFLOW FORECASTS

| FORECAST POINT              | FORECAST PERIOD | MOST PROBABLE (1000AF) | MOST PROBABLE (% AVG.) | WET SUBS. (1000AF) | DRY SUBS. (1000AF) | REAS. MAX. (1000AF) | REAS. MIN. (1000AF) | 25 YR. AVG. (1000AF) |
|-----------------------------|-----------------|------------------------|------------------------|--------------------|--------------------|---------------------|---------------------|----------------------|
| YAKIMA RIVER at Martin 1    | APR-SEP         | 118                    | 87                     | 118                | 118                | 133                 | 103                 | 136                  |
|                             | APR-JUL         | 109                    | 87                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 97                     | 87                     |                    |                    |                     |                     |                      |
| YAKIMA RIVER at Cle Elum 2  | APR-SEP         | 815                    | 86                     | -121.0             | -121.0             | 920                 | 710                 | 951                  |
|                             | APR-JUL         | 725                    | 86                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 630                    | 86                     |                    |                    |                     |                     |                      |
| YAKIMA RIVER nr Parker 2    | APR-SEP         | 1630                   | 79                     | -402.0             | -402.0             | 2070                | 1190                | 2075                 |
|                             | APR-JUL         | 1460                   | 78                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 1280                   | 78                     |                    |                    |                     |                     |                      |
| KACHESS RIVER nr Easton 1   | APR-SEP         | 110                    | 83                     | -20.0              | -20.0              | 127                 | 93                  | 133                  |
|                             | APR-JUL         | 94                     | 82                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 84                     | 82                     |                    |                    |                     |                     |                      |
| CLE ELUM RIVER nr Roslyn 1  | APR-SEP         | 415                    | 90                     | -42.0              | -42.0              | 470                 | 360                 | 459                  |
|                             | APR-JUL         | 375                    | 90                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 320                    | 91                     |                    |                    |                     |                     |                      |
| BUMPING RIVER nr Nile 1     | APR-SEP         | 118                    | 85                     | -20.0              | -20.0              | 149                 | 87                  | 139                  |
|                             | APR-JUL         | 108                    | 84                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 89                     | 84                     |                    |                    |                     |                     |                      |
| AMERICAN RIVER nr Nile      | APR-SEP         | 99                     | 82                     | -20.0              | -20.0              | 124                 | 74                  | 121                  |
|                             | APR-JUL         | 92                     | 82                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 77                     | 82                     |                    |                    |                     |                     |                      |
| TIETON RIVER at Tieton 1    | APR-SEP         | 195                    | 80                     | -17.0              | -17.0              | 250                 | 139                 | 244                  |
|                             | APR-JUL         | 166                    | 80                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 134                    | 80                     |                    |                    |                     |                     |                      |
| NACHES RIVER nr Naches 2    | APR-SEP         | 680                    | 79                     | -17.0              | -17.0              | 215                 | 118                 | 208                  |
|                             | APR-JUL         | 613                    | 79                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 525                    | 79                     |                    |                    |                     |                     |                      |
| AHNTANUM CREEK nr Tampico 2 | APR-SEP         | 36                     | 77                     | -10.0              | -10.0              | 173                 | 95                  | 168                  |
|                             | APR-JUL         | 33                     | 77                     |                    |                    |                     |                     |                      |
|                             | APR-JUN         | 28                     | 76                     |                    |                    |                     |                     |                      |

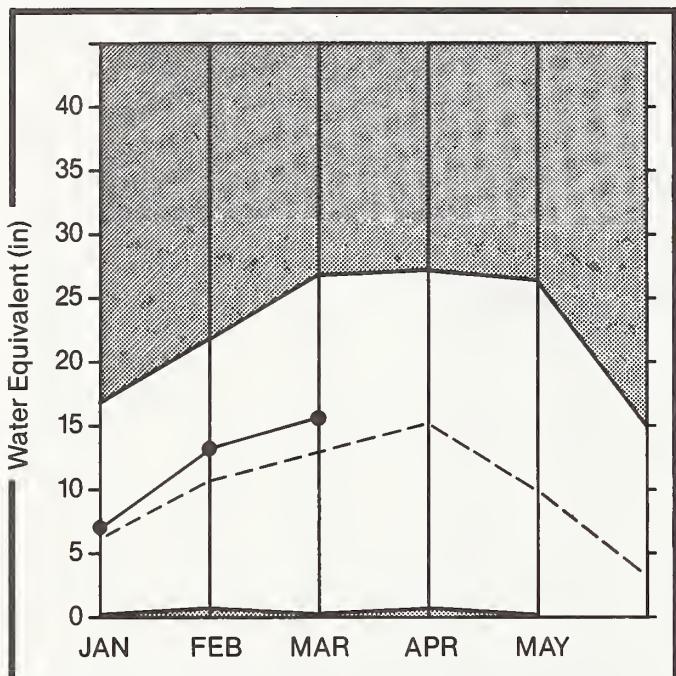
## RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

| RESERVOIR    | USEABLE CAPACITY | ** USEABLE STORAGE ** | WATERSHED | NO. COURSES | THIS YEAR AS % OF LAST YR. AVERAGE |    |     |    |
|--------------|------------------|-----------------------|-----------|-------------|------------------------------------|----|-----|----|
|              | 1                | THIS YEAR             | LAST YEAR | AVG.        |                                    |    |     |    |
| KEECELUS     | 157.8            | 107.0                 | 43.1      | 105.0       | Yakima River                       | 18 | 119 | 85 |
| KACHESS      | 239.0            | 104.4                 | 49.5      | 179.0       | Ahtanum Creek                      | 2  | 106 | 99 |
| CLE ELUM     | 436.9            | 230.4                 | 52.4      | 273.0       |                                    |    |     |    |
| BUMPING LAKE | 33.7             | 9.2                   | 10.4      | 10.0        |                                    |    |     |    |
| RIMROCK      | 198.0            | 91.6                  | 60.8      | 130.0       |                                    |    |     |    |

WET SUBS. and DRY SUBS. represent 150 and 50 percent subsequent precipitation events respectively.  
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.  
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.  
 (2) - Corrected for upstream diversions or changes in reservoir storage.

# WALLA WALLA

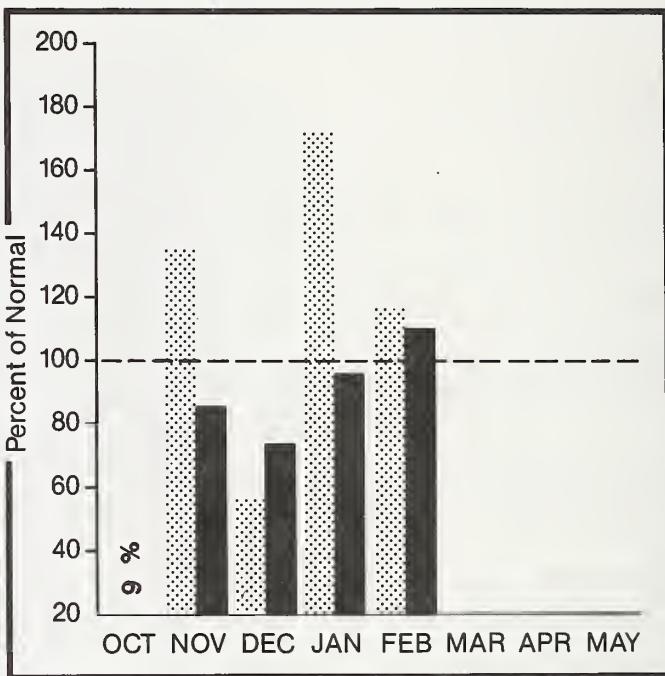
Mountain snowpack\* (inches)



\*Based on selected stations

Maximum      [Solid Gray Bar]  
Average      [Dashed Line]  
Minimum      [Hatched Bar]  
Current      [Solid Black Line with Dots]

Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation      [Hatched Bar]  
Year to date precipitation      [Solid Black Bar]

## WALLA WALLA RIVER BASIN

### WATER SUPPLY OUTLOOK:

March 1 snowpack in the Walla Walla River Basin is 120% of normal. February precipitation was 116% of average bringing the water year-to-date precipitation to 109% of normal. Water content at the Touchet SNOTEL site was 34.8 inches on March 1 up from 32.6 inches last month. The forecast calls for 106% of average streamflow in the Walla Walla River for the coming summer. Streamflow for the Snake River was at 44% of normal for February and 71% on the Walla Walla River. Temperatures were 12 degrees below average for February.

For more information contact your local Soil Conservation Service office.

WALLA WALLA RIVER BASIN

STREAMFLOW FORECASTS

| FORECAST POINT                    | FORECAST PERIOD | MOST PROBABLE (1000AF) | MOST PROBABLE (% AVG.) | WET SUBS. (1000AF) | DRY SUBS. (1000AF) | REAS. MAX. (1000AF) | REAS. MIN. (1000AF) | 25 YR. AVG. (1000AF) |
|-----------------------------------|-----------------|------------------------|------------------------|--------------------|--------------------|---------------------|---------------------|----------------------|
| MILL CREEK at Walla Walla         | APR-SEP         | 17.5                   | 100                    | 21                 | 14.5               | 23                  | 12.4                | 17.5                 |
|                                   | APR-JUL         | 17.3                   | 100                    | 21                 | 14.4               | 22                  | 12.3                | 17.3                 |
|                                   | APR-JUN         | 17.1                   | 100                    | 21                 | 14.2               | 22                  | 12.1                | 17.1                 |
| SF WALLA WALLA nr MiltonFreewater | APR-JUL         | 57                     | 104                    | 66                 | 47                 | 68                  | 46                  | 55                   |
| COUSE CK nr Milton Freewater      | APR-JUL         | 3.8                    | 106                    | 5.5                | 2.1                | 5.1                 | 2.5                 | 3.6                  |
| PINE CREEK nr Weston              | APR-JUL         | 2.9                    | 107                    | 0.2                | 0.2                | 3.8                 | 2.0                 | 2.7                  |
| COLUMBIA R. at The Dalles 2       | APR-SEP         | 92500                  | 91                     | -8.8               | -8.8               | 111000              | 75300               | 101801               |
|                                   | APR-JUL         | 79400                  | 91                     | -7700.0            | -7700.0            | 95100               | 63700               | 87100                |
|                                   | APR-JUN         | 64100                  | 91                     | -6370.0            | -6370.0            | 76800               | 51400               | 70470                |

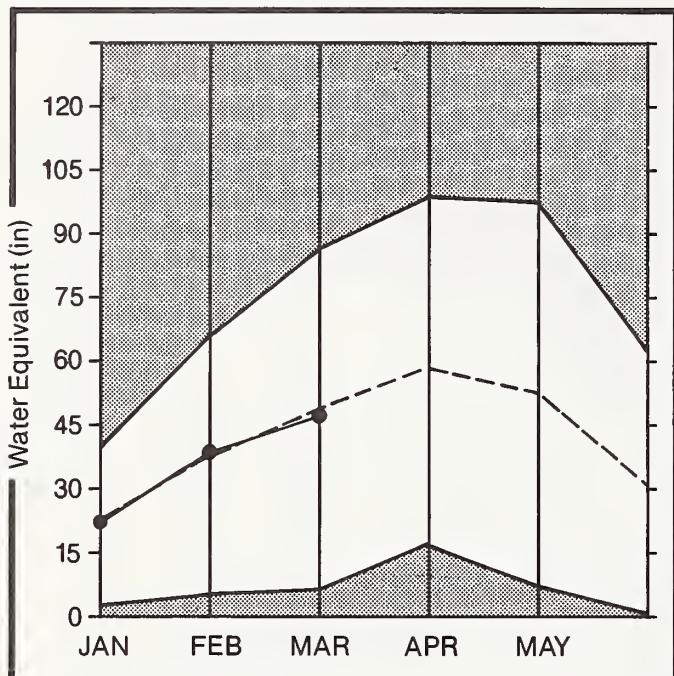
RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

| RESERVOIR | USEABLE CAPACITY | ** USEABLE STORAGE ** |           |      | WATERSHED  | NO. COURSES | THIS YEAR AS % OF |     |
|-----------|------------------|-----------------------|-----------|------|------------|-------------|-------------------|-----|
|           |                  | THIS YEAR             | LAST YEAR | AVG. |            |             |                   |     |
|           |                  |                       |           |      | Mill Creek | 1           | 218               | 120 |

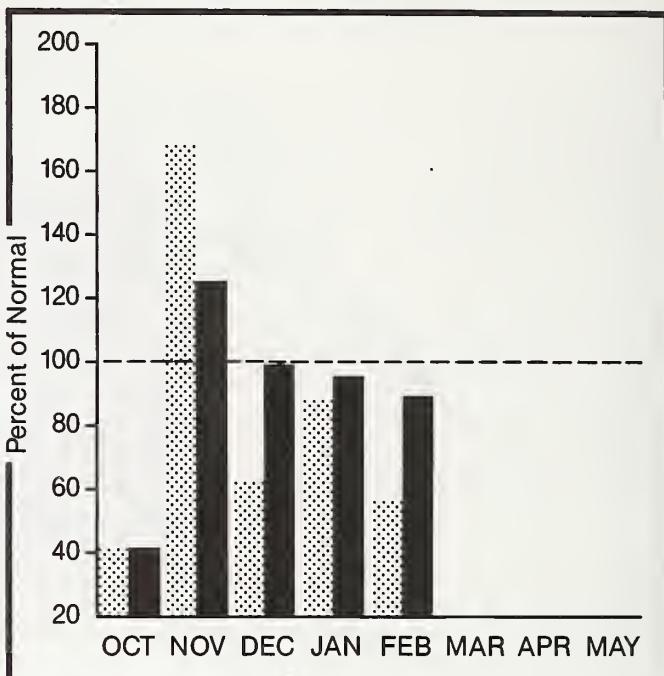
WET SUBS. and DRY SUBS. represent 150 and 50 percent subsequent precipitation events respectively.  
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.  
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.  
 (2) - Corrected for upstream diversions or changes in reservoir storage.

# COWLITZ AND LEWIS

**Mountain snowpack\*** (inches)



**Precipitation\*** (percent of normal)



\*Based on selected stations

\*Based on selected stations

Maximum      [Shaded Box]      Average      [Dashed Line]  
Minimum      [Hatched Box]      Current      [Solid Line with Dots]

Monthly precipitation      [Hatched Box]      Year to date precipitation      [Solid Box]

## COWLITZ - LEWIS RIVER BASINS

### WATER SUPPLY OUTLOOK:

Summer runoff forecasts for the Lewis River are 105% and for the Cowlitz River 96%. February precipitation was 56% of normal bringing the water year-to-date precipitation to 88% of average. March 1 snow cover for the Cowlitz-Lewis Basin is 96% of normal, down from 103% last month. The Cayuse Pass snow course has the maximum water content for the basin with 67.6 inches of water on March 1. Temperatures were seven degrees below normal for February.

For more information contact your local Soil Conservation Service office.

COWLITZ - LEWIS RIVER BASINS

STREAMFLOW FORECASTS

| FORECAST POINT               | FORECAST PERIOD | MOST PROBABLE<br>(1000AF) | MOST PROBABLE<br>(% AVG.) | WET SUBS.<br>(1000AF) | DRY SUBS.<br>(1000AF) | REAS. MAX.<br>(1000AF) | REAS. MIN.<br>(1000AF) | 25 YR.<br>AVG.<br>(1000AF) |
|------------------------------|-----------------|---------------------------|---------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------------|
| LEWIS RIVER at Ariel 2       | APR-SEP         | 1310                      | 105                       | 1460                  | 1170                  | 1680                   | 935                    | 1244                       |
|                              | APR-JUL         | 1140                      | 103                       | 56                    | 56                    | 1470                   | 815                    | 1084                       |
|                              | APR-JUN         | 1010                      | 105                       | 52                    | 52                    | 1300                   | 725                    | 958                        |
| COWLITZ R. bl Mayfield Dam 2 | APR-SEP         | 1960                      | 96                        | -76.0                 | -76.0                 | 2670                   | 1250                   | 2036                       |
|                              | APR-JUL         | 1720                      | 97                        | -62.0                 | -62.0                 | 2340                   | 1100                   | 1782                       |
|                              | APR-JUN         | 1480                      | 97                        | -44.0                 | -44.0                 | 2010                   | 945                    | 1524                       |
| COWLITZ R. at Castle Rock 2  | APR-SEP         | 2530                      | 94                        | -157.0                | -157.0                | 3470                   | 1590                   | 2687                       |
|                              | APR-JUL         | 2210                      | 94                        | -133.0                | -133.0                | 3030                   | 1390                   | 2343                       |
|                              | APR-JUN         | 1920                      | 95                        | -95.0                 | -95.0                 | 2630                   | 1210                   | 2015                       |

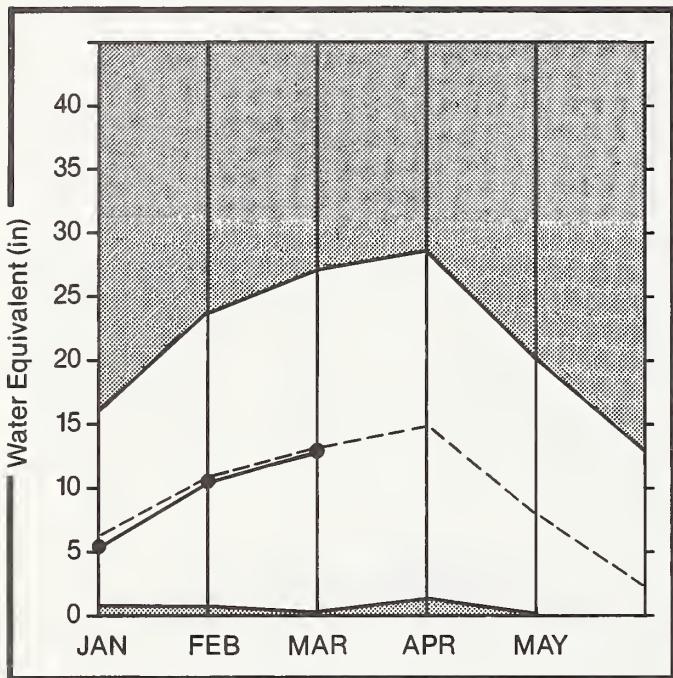
RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

| RESERVOIR | USEABLE CAPACITY | ** USEABLE STORAGE ** | WATERSHED     | NO. COURSES | THIS YEAR AS % OF |
|-----------|------------------|-----------------------|---------------|-------------|-------------------|
|           | THIS YEAR        | LAST YEAR             | AVG.          | AVG'D       | LAST YR. AVERAGE  |
|           |                  |                       | Cowlitz River | 2           | 142 96            |
|           |                  |                       | Lewis River   | 2           | 126 112           |

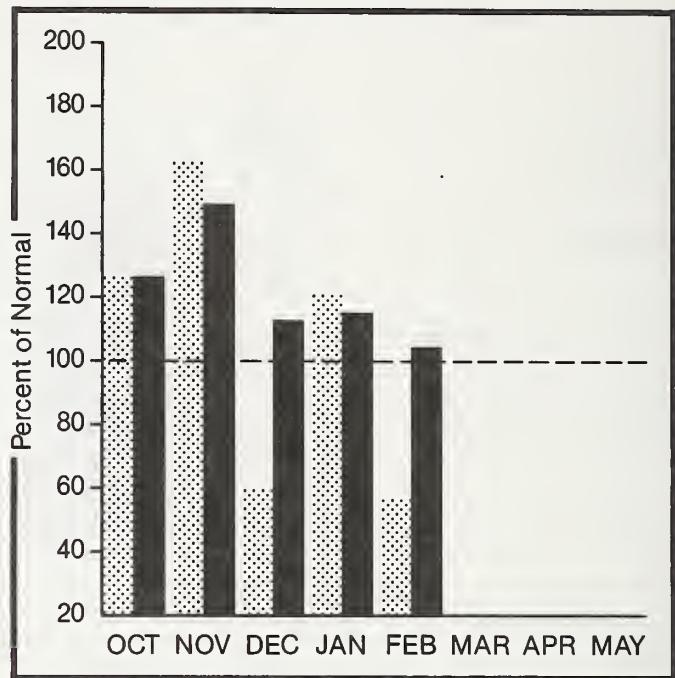
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 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.  
 (2) - Corrected for upstream diversions or changes in reservoir storage.

# WHITE - GREEN

Mountain snowpack\* (inches)



Precipitation\* (percent of normal)



\*Based on selected stations

\*Based on selected stations

Maximum      [Shaded Box]      Average      [Dashed Line]  
Minimum      [Solid Box]      Current      [Solid Line with Dot]

Monthly precipitation      [Dotted Box]      Year to date precipitation      [Solid Box]

## WHITE - GREEN RIVER BASINS

### WATER SUPPLY OUTLOOK:

March 1 snowpack is 98% of normal for the basin, down from 107% last month. February precipitation was 56% of normal bringing the water year-to-date to 104% of average. Summer runoff is forecasted to be 101% on the Green River and 100% of normal on Cedar River. Snow depth at the Corral Pass snow course was 91 inches with 33.7 inches of water content on March 1. Temperatures were seven degrees below average for February.

For more information contact your local Soil Conservation Service office.

## WHITE - GREEN RIVER BASINS

## STREAMFLOW FORECASTS

| FORECAST POINT                     | FORECAST PERIOD | MOST PROBABLE<br>(1000AF) | MOST PROBABLE<br>(% AVG.) | WET SUBS.<br>(1000AF) | DRY SUBS.<br>(1000AF) | REAS. MAX.<br>(1000AF) | REAS. MIN.<br>(1000AF) | 25 YR.<br>AVG.<br>(1000AF) |
|------------------------------------|-----------------|---------------------------|---------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------------|
| GREEN RIVER b1 Howard Hanson Dam 2 | APR-SEP         | 295                       | 101                       | 345                   | 245                   | 370                    | 220                    | 291                        |
|                                    | APR-JUL         | 265                       | 102                       | 310                   | 220                   | 330                    | 200                    | 261                        |
|                                    | APR-JUN         | 240                       | 102                       | 315                   | 157                   | 300                    | 181                    | 236                        |
| CEDAR RIVER nr Cedar Falls         | APR-SEP         | 93                        | 100                       | 125                   | 61                    | 116                    | 70                     | 93                         |

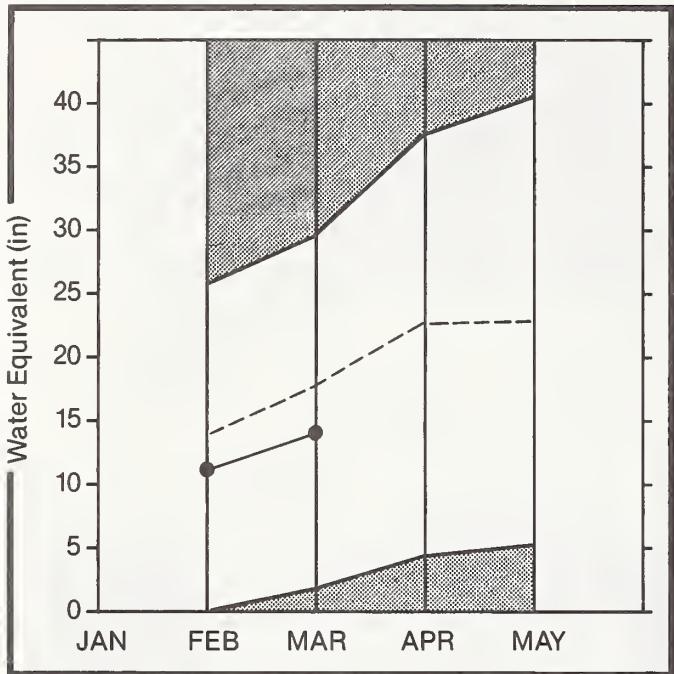
  

| RESERVOIR STORAGE<br>(1000AF) |                               |   | WATERSHED SNOWPACK ANALYSIS |                      |                                       |  |
|-------------------------------|-------------------------------|---|-----------------------------|----------------------|---------------------------------------|--|
| RESERVOIR                     | USEABLE CAPACITY<br>THIS YEAR | ** USEABLE STORAGE **<br>LAST YEAR AVG. | WATERSHED                   | NO. COURSES<br>AVG'D | THIS YEAR AS % OF<br>LAST YR. AVERAGE |  |
|                               |                               |   | White River                 | 2                    | 137 98                                |  |
|                               |                               |   | Green River                 | 2                    | 141 92                                |  |
|                               |                               |   | Cedar River                 | 2                    | 168 114                               |  |

WET SUBS. and DRY SUBS. represent 150 and 50 percent subsequent precipitation events respectively.  
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# OLYMPIC

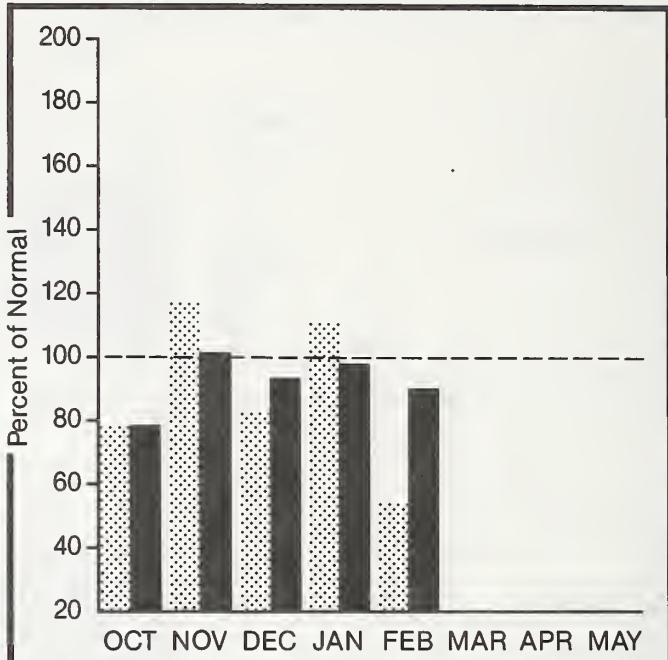
**Mountain snowpack\* (inches)**



\*Based on selected stations

Maximum      [Solid Grey Box]      Average      [Dashed Line Box]  
 Minimum      [Solid Grey Box]      Current      [Solid Line with Dots Box]

**Precipitation\* (percent of normal)**



\*Based on selected stations

Monthly precipitation      [Stippled Box]      Year to date precipitation      [Solid Black Box]

## OLYMPIC PENINSULA RIVER BASIN

### WATER SUPPLY OUTLOOK:

February precipitation was 54% of average, with the Quillayute weather service office recording 6.22 inches of precipitation during February. The water year-to-date precipitation accumulation is 89% of normal, down from 97% last month. The February 1 snow cover was 77% of normal in the Olympic basins. Forecasts of runoff for streamflow in the basin are for 84% of average on the Dungeness River, down from 95% last month and 86% for the Elwha River. The maximum recorded snowpack was at the Cox Valley snow course where 77 inches of snow contained 26.8 inches of water. Average water content at this site is 32.9 inches for March 1. Temperatures were seven degrees below normal for February.

For more information contact your local Soil Conservation Service office.

OLYMPIC PENINSULA RIVER BASINS

STREAMFLOW FORECASTS

| FORECAST POINT              | FORECAST PERIOD | MOST PROBABLE<br>(1000AF) | MOST PROBABLE<br>(% AVG.) | WET SUBS.<br>(1000AF) | DRY SUBS.<br>(1000AF) | REAS. MAX.<br>(1000AF) | REAS. MIN.<br>(1000AF) | 25 YR.<br>AVG.<br>(1000AF) |
|-----------------------------|-----------------|---------------------------|---------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------------|
| DUNGENESS RIVER nr Sequim   | APR-SEP         | 133                       | 84                        | 157                   | 109                   | 162                    | 104                    | 159                        |
|                             | APR-JUL         | 108                       | 84                        | 129                   | 87                    | 131                    | 85                     | 129                        |
|                             | APR-JUN         | 81                        | 84                        | -16.0                 | -16.0                 | 98                     | 64                     | 97                         |
| ELWHA RIVER nr Port Angeles | APR-SEP         | 475                       | 86                        | 525                   | 425                   | 575                    | 375                    | 553                        |
|                             | APR-JUL         | 395                       | 87                        | 435                   | 355                   | 475                    | 315                    | 454                        |

RESERVOIR STORAGE

(1000AF)

WATERSHED SNOWPACK ANALYSIS

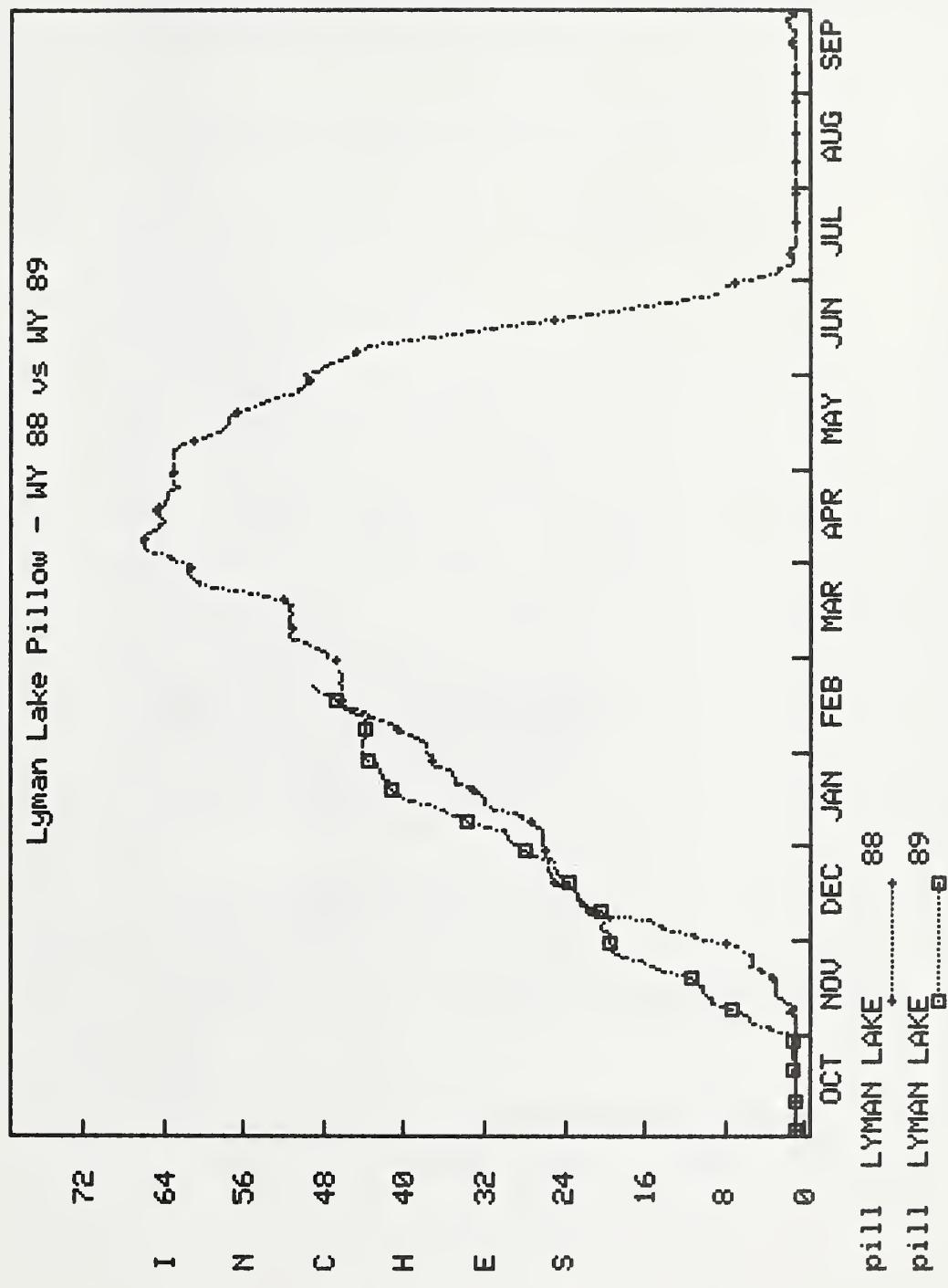
| RESERVOIR | USEABLE CAPACITY | ** USEABLE STORAGE ** |           |      | WATERSHED       | NO. COURSES | THIS YEAR AS % OF |          |
|-----------|------------------|-----------------------|-----------|------|-----------------|-------------|-------------------|----------|
|           |                  | THIS YEAR             | LAST YEAR | AVG. |                 |             | AVG'D             | LAST YR. |
|           |                  |                       |           |      | Dungeness River | 1           | 83                | 79       |
|           |                  |                       |           |      | Morse Creek     | 1           | 81                | 81       |
|           |                  |                       |           |      | Elwha River     | 1           | 84                | 78       |

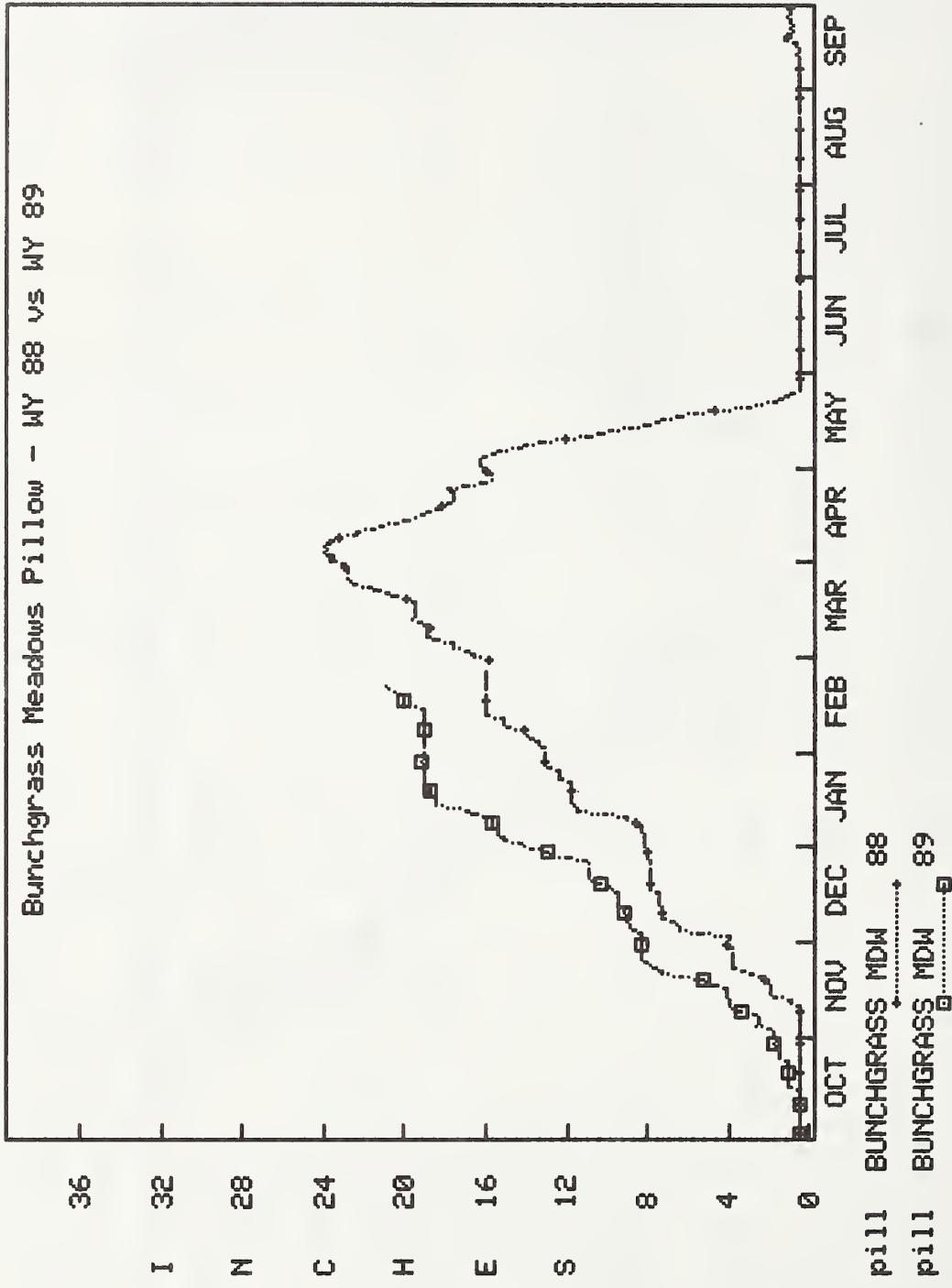
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BASIN SUMMARY OF  
SNOW COURSE DATA

MARCH 1989

| SNOW COURSE               | ELEVATION | DATE    | SNOW DEPTH | WATER CONTENT | LAST YEAR | AVERAGE 1961-85 | SNOW COURSE              | ELEVATION | DATE | SNOW DEPTH  | WATER CONTENT | LAST YEAR | AVERAGE 1961-85 |  |  |  |  |  |  |  |
|---------------------------|-----------|---------|------------|---------------|-----------|-----------------|--------------------------|-----------|------|-------------|---------------|-----------|-----------------|--|--|--|--|--|--|--|
| <b>PENO DREILLE RIVER</b> |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| BENTON MEADOW             | 2370      | 2/27/89 | 21         | 6.5           | 4.0       | 6.0             | COLOCKUM CREEK           |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| BENTON SPRING             | 4920      | 2/27/89 | 51         | 14.4          | 10.4      | 17.2            | TROUGH #2                | FILLOW    | 5310 | 3/01/89     | ---           | 5.25      | 7.9             |  |  |  |  |  |  |  |
| BOYER MOUNTAIN            | 5250      | 2/27/89 | 61         | 20.3          | 14.5      | 22.3            | SOUILCHUCK CREEK         |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| BUNENGRASS MEADOWS        | 5000      | 2/27/89 | 66         | 20.8          | 17.6      | 26.1            | EEENIVE SPRINGS          |           | 4400 | 3/02/89     | 35            | 7.6       | 5.7             |  |  |  |  |  |  |  |
| BUNENGRASS MOPPILLOW      | 5000      | 3/01/89 | ---        | 21.05         | 15.4      | 24.2            | STEMILT CREEK            |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| CHEWALAN                  | 4930      | 3/01/89 | 42         | 11.0          | 9.7       | 13.9            | STEMILT SLIOE            |           | 5000 | 3/02/89     | 45            | 10.7      | 10.1            |  |  |  |  |  |  |  |
| HEART LAKE TRAIL          | 4800      | 2/25/89 | 56         | 18.0          | 15.2      | 19.5            | UPPER WHEELER            |           | 4400 | 2/23/89     | 30            | 7.6       | 5.1             |  |  |  |  |  |  |  |
| HODODOO BASIN             | 6050      | 2/25/89 | 95         | 35.4          | 33.0      | 43.9            | <b>YAKIMA RIVER</b>      |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| HODODOO CREEK             | 5900      | 2/25/89 | 88         | 31.6          | 28.9      | 40.7            | ANTAHUM R.S.             |           | 3100 | 2/24/89     | 25            | 6.9       | 5.6             |  |  |  |  |  |  |  |
| LOOKOUT                   | 5140      | 3/01/89 | 79         | 22.4          | 18.4      | 29.5            | BIG BOULDER CREEK        |           | 3200 | 2/28/89     | 48            | 14.6      | 15.2            |  |  |  |  |  |  |  |
| NELSON CAN.               | 3100      | 3/02/89 | 48         | 13.0          | 10.3      | 14.3            | BLEWETT PASS #2          |           | 4270 | 2/24/89     | 39            | 12.3      | 11.3            |  |  |  |  |  |  |  |
| SCHEITZER BOWL            | 4800      | 2/28/89 | 72         | 25.5          | 18.3      | 27.2            | BLEWETT PASS#2 PILLOW    |           | 4270 | 3/01/89     | ---           | 14.55     | 14.2            |  |  |  |  |  |  |  |
| SCHEITZER RIDGE           | 6200      | 2/28/89 | 94         | 35.0          | 28.5      | 40.1            | BUMPING LAKE             |           | 3450 | 2/28/89     | 32            | 8.4       | 10.7            |  |  |  |  |  |  |  |
| <b>COLVILLE RIVER</b>     |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| BAIKO                     | 3220      | 3/01/89 | 33         | 8.1           | 5.5       | 6.9             | BUMPING LAKE (NEW)       |           | 3400 | 2/28/89     | 35            | 13.6      | 12.2            |  |  |  |  |  |  |  |
| CHEWALAN                  | 4930      | 3/01/89 | 42         | 11.0          | 9.7       | 13.9            | CAYUSE PASS              |           | 5300 | 3/02/89     | ---           | 67.6E     | 44.2            |  |  |  |  |  |  |  |
| STRANGER MOUNTAIN         | 4230      | 3/01/89 | 33         | 7.8           | --        | --              | COLOCKUM PASS            |           | 5370 | 2/28/89     | 40            | 12.0      | 10.7            |  |  |  |  |  |  |  |
| TOGO                      | 3370      | 2/27/89 | 31         | 7.8           | 6.4       | 9.0             | CORRAL PASS PILLOW       |           | 6000 | 3/01/89     | ---           | 29.35     | 26.3            |  |  |  |  |  |  |  |
| <b>KETTLE RIVER</b>       |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| BARNES CREEK CAN.         | 5300      | 2/25/89 | 50         | 14.9          | 15.3      | 17.2            | FISH LAKE                |           | 3370 | 2/28/89     | 75            | 24.4      | --              |  |  |  |  |  |  |  |
| BIG WHITE MTN CAN.        | 5510      | 2/26/89 | 46         | 13.6          | 13.2      | 16.3            | FISH LAKE PILLOW         |           | 3370 | 3/01/89     | ---           | 25.55     | 26.4            |  |  |  |  |  |  |  |
| BUITE CREEK               | 4070      | 3/01/89 | 34         | 6.9           | 5.6       | 8.6             | GREEN LAKE               |           | 6000 | 2/24/89     | 68            | 23.5      | 27.6            |  |  |  |  |  |  |  |
| CAMI CAN.                 | 4100      | 2/24/89 | 23         | 5.4           | 3.3       | 6.1             | GREEN LAKE PILLOW        |           | 6000 | 3/01/89     | ---           | 17.95     | 17.9            |  |  |  |  |  |  |  |
| FARRON CAN.               | 4000      | 2/28/89 | 38         | 10.0          | 7.0       | 12.4            | GROUSE CAMP              |           | 5380 | 2/27/89     | 46            | 13.4      | 11.3            |  |  |  |  |  |  |  |
| GOAT CREEK                | 3600      | 3/01/89 | 30         | 6.2           | 4.4       | 6.6             | GROUSE CAMP PILLOW       |           | 5380 | 3/01/89     | ---           | 15.55     | 11.4            |  |  |  |  |  |  |  |
| MONGASNEE PASS CAN.       | 4500      | 2/25/89 | 40         | 11.0          | 10.5      | 12.2            | LAKE CLE ELUM            |           | 2200 | 2/27/89     | 15            | 3.8       | 2.7             |  |  |  |  |  |  |  |
| SUMMIT G.S.               | 4400      | 3/01/89 | 26         | 7.3           | 5.4       | 7.3             | MORSE LAKE               |           | 5400 | 3/01/89     | ---           | 40.05     | --              |  |  |  |  |  |  |  |
| TRAFFING CK LOW CAN.      | 3050      | 2/25/89 | 22         | 5.4           | 3.8       | 5.1             | OLALLIE E.S. PILLOW      |           | 2940 | 3/01/89     | ---           | 46.85     | 38.9            |  |  |  |  |  |  |  |
| SUMMERLAND RES CAN.       | 4200      | 2/27/89 | 29         | 7.4           | 4.4       | 8.7             | OLALLIE MEADOWS          |           | 3630 | 2/24/89     | 93            | 38.7      | 27.3            |  |  |  |  |  |  |  |
| SUNDAY SUMMIT CAN.        | 4300      | 2/25/89 | 20         | 4.9           | 3.3       | 5.5             | STANFEE PASS PILLOW      |           | 3860 | 3/01/89     | ---           | 41.45     | 35.0            |  |  |  |  |  |  |  |
| TROUT CREEK CAN.          | 4690      | 2/24/89 | 25         | 5.8           | 4.1       | 6.7             | SASSIE RIDGE PILLOW      |           | 4200 | 3/01/89     | ---           | 27.85     | 25.2            |  |  |  |  |  |  |  |
| VASQUEZ CREEK CAN.        | 4600      | 2/27/89 | 21         | 4.6           | 3.5       | 5.9             | TUNNEL AVENUE            |           | 2450 | 2/24/89     | 50            | 15.4      | 12.1            |  |  |  |  |  |  |  |
| WHITE ROCKS MTN CAN.      | 6000      | 3/01/89 | 48         | 17.1          | 14.9      | 20.0            | WHITE PASS E.S.          |           | 4500 | 2/26/89     | 54            | 14.9      | 15.3            |  |  |  |  |  |  |  |
| WHITE ROCKS MTN CAN.      | 6000      | 3/01/89 | 48         | 17.1          | 14.9      | 20.0            | WHITE PASS ES PILLOW     |           | 4500 | 3/01/89     | ---           | 17.85     | 15.8            |  |  |  |  |  |  |  |
| <b>METHOW RIVER</b>       |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| HARTS PASS PILLOW         | 6500      | 3/01/89 | ---        | 32.25         | 30.1      | 47.1            | ANTAHUM R.S.             |           | 3100 | 2/24/89     | 25            | 6.9       | 5.6             |  |  |  |  |  |  |  |
| MUTTON CREEK #1           | 5700      | 2/24/89 | 36         | 8.4           | 12.6      | 11.9            | GREEN LAKE               |           | 6000 | 3/01/89     | ---           | 17.95     | 17.9            |  |  |  |  |  |  |  |
| RUSTY CREEK               | 4000      | 2/24/89 | 25         | 5.5           | 4.6       | 6.5             | <b>MILL CREEK</b>        |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| SALMON MEADOWS            | 4500      | 2/25/89 | 31         | 6.0           | 6.6       | 9.3             | HIGH RIDGE               |           | 4980 | 3/01/89     | ---           | 31.25     | 14.3            |  |  |  |  |  |  |  |
| SALMON MOHS PILLOW        | 4500      | 3/01/89 | ---        | 7.95          | 6.6       | 12.6            | TOUCHET #2               |           | 5530 | 3/01/89     | ---           | 34.85     | 23.5            |  |  |  |  |  |  |  |
| <b>CHELAN LAKE BASIN</b>  |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| CLOUDY PASS AM            | 6500      | 3/03/89 | 88         | 29.5          | 25.4      | 33.5            | LEWIS AND COWLITZ RIVERS |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| LYMAN LAKE PILLOW         | 5900      | 3/01/89 | ---        | 49.05         | 46.1      | 55.9            | CAYUSE PASS              |           | 5300 | 3/02/89     | ---           | 67.6E     | 44.2            |  |  |  |  |  |  |  |
| LITTLE MOHS AM            | 5280      | 3/03/89 | 110        | 36.6          | 39.9      | 37.5            | JUNE LAKE                |           | 3200 | 3/01/89     | ---           | 39.55     | --              |  |  |  |  |  |  |  |
| PARKS CK RIDGE PILLOW     | 4600      | 3/01/89 | ---        | 38.15         | 42.5      | 39.9            | LONE PINE                |           | 3800 | 3/01/89     | ---           | 27.85     | 18.4            |  |  |  |  |  |  |  |
| RAINY PASS PILLOW         | 4780      | 3/01/89 | ---        | 26.65         | 30.8      | 41.7            | POTATO HILL              |           | 4500 | 3/01/89     | ---           | 21.85     | 18.9            |  |  |  |  |  |  |  |
| <b>ENTIAT RIVER</b>       |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| ERIEF                     | 1600      | 2/23/89 | 23         | 6.3           | 6.2       | 6.9             | SHEEP CANYON             |           | 4050 | 3/01/89     | ---           | 46.75     | 29.1            |  |  |  |  |  |  |  |
| POPE RIDGE                | 3540      | 3/03/89 | 56         | 18.0          | 16.6      | 17.1            | SPENCER HOW              |           | 3400 | 3/01/89     | ---           | 30.05     | 20.0            |  |  |  |  |  |  |  |
| <b>WENATCHEE RIVER</b>    |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| BERNE-MIL CREEK           | 3170      | 2/28/89 | 62         | 21.0          | 23.8      | 24.8            | SPIRIT LAKE              |           | 3100 | 3/01/89     | ---           | 13.65     | 13.1            |  |  |  |  |  |  |  |
| BLEWETT PASS #2           | 4270      | 2/24/89 | 39         | 12.3          | 11.3      | 14.4            | STRAWBERRY L.            |           | 3280 | 3/01/89     | ---           | 43.85     | 41.7            |  |  |  |  |  |  |  |
| BLEWETT PASS#2 PILLOW     | 4270      | 3/01/89 | ---        | 14.55         | 14.2      | 22.2            | SURPRISE LKS             |           | 4250 | 3/01/89     | ---           | 47.05     | 45.2            |  |  |  |  |  |  |  |
| CHIWAUKUM G.S.            | 2500      | 2/28/89 | 30         | 8.5           | 7.3       | 11.0            | WHITE PASS E.S.          |           | 4500 | 2/26/89     | 54            | 14.9      | 15.3            |  |  |  |  |  |  |  |
| LYMAN LAKE PILLOW         | 5900      | 3/01/89 | ---        | 49.05         | 46.1      | 55.9            | WHITE PASS ES PILLOW     |           | 4500 | 3/01/89     | ---           | 17.85     | 22.0            |  |  |  |  |  |  |  |
| MERRITT                   | 2140      | 2/28/89 | 30         | 9.8           | 10.7      | 14.7            | <b>WHITE RIVER</b>       |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| MISSION RIDGE             | 5000      | 3/02/89 | 59         | 15.9          | 9.6       | --              | CAYUSE PASS              |           | 5360 | 3/02/89     | ---           | 67.6E     | 44.2            |  |  |  |  |  |  |  |
| STEVENS PASS PILLOW       | 4070      | 3/01/89 | ---        | 40.65         | 37.1      | 37.8            | CORRAL PASS              |           | 6000 | 2/28/89     | 91            | 33.7      | 34.1            |  |  |  |  |  |  |  |
| STEVENS PASS SAND SO      | 3700      | 2/28/89 | 76         | 25.8          | 26.8      | 31.9            | CORRAL PASS PILLOW       |           | 6000 | 3/01/89     | ---           | 29.35     | 26.3            |  |  |  |  |  |  |  |
| <b>SPOKANE RIVER</b>      |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| ADONIE BURKE              | 4100      | 2/27/89 | ---        | 15.2E         | 12.4      | 19.0            | COUGAR MTN.              |           | 3200 | 3/01/89     | ---           | 25.25     | 12.3            |  |  |  |  |  |  |  |
| FOURTH OF JULY SUM        | 3200      | 2/27/89 | 39         | 11.6          | 6.2       | 8.2             | STAMPEO PASS PILLOW      |           | 3860 | 3/01/89     | ---           | 41.45     | 35.0            |  |  |  |  |  |  |  |
| LOOKOUT                   | 5140      | 3/01/89 | 79         | 22.4          | 18.4      | 29.5            | <b>CEDAR RIVER</b>       |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| LOST LAKE                 | 6110      | 3/03/89 | 120        | 41.0          | 30.1      | 48.7            | CITY CABIN               |           | 2390 | 3/03/89     | 50            | 16.4      | 8.8             |  |  |  |  |  |  |  |
| SHERWIN                   | 3200      | 2/28/89 | 54         | 17.3          | 8.3       | 12.3            | MT. GAROMER              |           | 3300 | 3/03/89     | 44            | 15.5      | 10.2            |  |  |  |  |  |  |  |
| SUNSET                    | 5540      | 2/26/89 | 84         | 22.7          | 17.0      | 28.1            | <b>SNOOQUALMIE RIVER</b> |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| <b>NEWMAN LAKE</b>        |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| QUARTZ PEAK PILLOW        | 4700      | 3/01/89 | ---        | 21.15         | 12.9      | --              | KRONOMA MINE             |           | 2600 | 2/23/89     | 74            | 32.3      | 22.7            |  |  |  |  |  |  |  |
| RAGGEO RIDGE              | 3330      | 2/26/89 | 40         | 12.8          | 12.0      | --              | OLALLIE MEADOWS          |           | 3630 | 2/24/89     | 93            | 38.7      | 39.3            |  |  |  |  |  |  |  |
| <b>OKANOGAN RIVER</b>     |           |         |            |               |           |                 |                          |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| ABEROFEN LAKE CAN.        | 4300      | 2/27/89 | 23         | 5.1           | 3.3       | 5.9             | OLNEY PASS               |           | 3250 | 2/23/89     | 54            | 26.6      | --              |  |  |  |  |  |  |  |
| BLACKHALL PEAK CAN.       | 6370      | 2/24/89 | 67         | 24.9          | 23.6      | 29.6            | STEVENS PASS             |           | 4070 | 3/01/89     | ---           | 40.65     | 37.1            |  |  |  |  |  |  |  |
| BRENOA MINE CAN.          | 4600      | 2/27/89 | 38         | 10.2          | 8.2       | 11.9            | STEVENS PASS SAND SO     |           | 3700 | 2/28/89     | 76            | 25.8      | 31.9            |  |  |  |  |  |  |  |
| BRONKEMERE CAN.           | 3200      | 2/27/89 | 24         | 6.3           | 5.7       | 8.0             | <b>SKAGIT RIVER</b>      |           |      |             |               |           |                 |  |  |  |  |  |  |  |
| ENOKEY CAN.               | 4200      | 2/27/89 | 87         | 28.9          | 31.0      | 32.6            | BEAVER CREEK TRAIL       |           | 2200 | 2/27/89     | 24            | 8.2       | 8.7             |  |  |  |  |  |  |  |
| ESPERON CK. LO CAN.       | 4400      | 2/26/89 | 37         | 9.0           | 7.3       | 10.6            | BEAVER PASS              |           | 3680 | 2/28/89     | 55            | 16.8      | 21.0            |  |  |  |  |  |  |  |
| ESPERON CK. MI. CAN.      | 4690      | 2/26/89 | 43         | 11.2          | 9.8       | 13.2            | ERDWN TOP AM             |           | 6000 | 3/27/89     | 129           | 45.2      | 39.6            |  |  |  |  |  |  |  |
| ESPERON CK. UP CAN.       | 5410      | 2/26/89 | 45         | 12.0          | 12.0      | 15.7            | DEVILS PARK              |           | 5900 | 2/27/89     | 85            | 29.2      | 37.8            |  |  |  |  |  |  |  |
| GREYBACK RES CAN.         | 5120      | 2/28/89 | 29         | 6.1           | 4.2       | 7.8             | FREEZEOUT CK. TRAIL      |           | 3500 | 2/27/89     | 28            | 7.8       | 8.5             |  |  |  |  |  |  |  |
| HARTS PASS PILLOW         | 6500      | 3/01/89 | ---        | 32.25         | 30.1      | 47.1            | GRANITE CREEK            |           | 3500 | 2/28/89     | 45            | 13.2      | 12.8            |  |  |  |  |  |  |  |
| ISINTOK LAKE CAN.         | 5500      | 2/28/89 | 24         | 5.0           | 2.8       | 6.8             | HARTS PASS               |           | 6500 | 3/01/89     | ---           | 32.25     | 30.1            |  |  |  |  |  |  |  |
| LOST HORSE MTN CAN.       | 6300      | 3/02/89 | 32         | 6.8           | 3.6       | 8.1             | KLESILKWA CAN.           |           | 3710 | 3/03/89     | 39            | 11.9      | 9.4             |  |  |  |  |  |  |  |
| MCCULLOCK CAN.            | 4200      | 2/28/89 | 27         | 5.7           | 4.0       | 6.4             | LIGHTNING LAKE CAN.      |           | 4000 | 2/25/89     | 27            | 7.4       | 11.9            |  |  |  |  |  |  |  |
| MISEZULKA MTN CAN.        | 5090      | 2/26/89 | 31         | 7.4           | 4.8       | 9.0             | LYMAN LAKE               |           | 5900 | 3/01/89     | ---           | 49.05     | 46.1            |  |  |  |  |  |  |  |
| MISSION CREEK CAN.        | 5800      | 3/02/89 | 52         | 15.0          | 14.3      | 17.2            | MEADOWS CABIN            |           | 1900 | 3/02/89</td |               |           |                 |  |  |  |  |  |  |  |





## The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

**Canada:**

Ministry of the Environment, Water  
Investigations Branch, Victoria, British Columbia

**States:**

Washington State Department of Ecology  
Washington State Department of Natural Resources

**Federal:**

Department of the Army  
Corps of Engineers  
U.S. Department of Agriculture  
Forest Service  
U.S. Department of Commerce  
NOAA, National Weather Service  
U.S. Department of the Interior  
Bonneville Power Administration  
Bureau of Reclamation  
Geological Survey  
National Park Service  
Bureau of Indian Affairs

**Local:**

City of Tacoma  
City of Seattle  
Chelan County P.U.D.  
Pacific Power and Light Company  
Puget Sound Power and Light Company  
Washington Water Power Company  
Snohomish County P.U.D.  
Colville Confederated Tribes  
Spokane County

**Private:**

Okanogan Irrigation District  
Wenatchee Heights Irrigation District  
Newman Lake Homeowners Association

Other organizations and individuals furnish valuable information for  
snow survey reports. Their cooperation is gratefully acknowledged.

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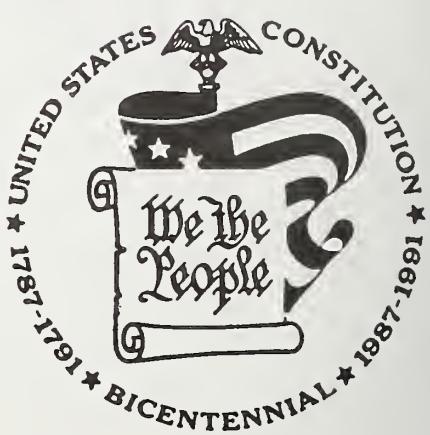
### Washington Water Supply Outlook

and

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